

## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method of screening a compound or its salt ~~that changes the binding property of a G protein-coupled receptor protein comprising: the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 8, or a salt thereof, to a fatty acid or a salt thereof, which comprises using (1) the receptor protein, its partial peptide, or a salt thereof and (2) the fatty acid or a salt thereof~~  
(i) contacting *in vitro* cells comprising a G protein-coupled receptor protein comprising substantially the same amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 8, wherein the G protein-coupled receptor protein has a G protein-coupled receptor function, with a fatty acid or a salt thereof in the presence of the compound or its salt and in the absence of the compound or its salt,  
(ii) assaying a cell-stimulating activity stimulated by binding of the fatty acid or a salt thereof to the G protein-coupled receptor protein in the presence of the compound or its salt and in the absence of the compound or its salt, and  
(iii) comparing the cell stimulating activity stimulated by binding of the fatty acid or a salt thereof to the G protein-coupled receptor protein in the presence of the compound or its salt and in the absence of the compound or its salt, wherein a change in cell-stimulating activity indicates that the compound or its salt changes a binding property of the G protein-coupled receptor protein.
2. (Canceled)

3. (Currently Amended) A method of ~~claim 1 for screening an agonist or an antagonist to a G~~  
~~protein-coupled receptor protein comprising the same or substantially the same amino acid~~  
~~sequence as the amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID~~  
~~NO: 8, or a salt thereof, which comprises using (1) the receptor protein, its partial peptide, or a~~  
~~salt thereof and (2) a compound or its salt that changes the binding property of the receptor~~  
~~protein, or a salt thereof to a fatty acid or a salt thereof. a compound or its salt comprising:~~  
i) contacting *in vitro* a G protein-coupled receptor protein comprising substantially the same  
amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 8, wherein  
the G protein-coupled receptor protein has a G protein-coupled receptor function, with a fatty  
acid or a salt thereof in the presence of the compound or its salt and in the absence of the  
compound or its salt,  
ii) assaying the binding of the fatty acid or a salt thereof to the G protein-coupled receptor  
protein in the presence of the compound or its salt and in the absence of the compound or its salt,  
and  
iii) comparing the binding of the fatty acid or a salt thereof to the G protein-coupled receptor  
protein in the presence of the compound or its salt and in the absence of the compound or its salt,  
wherein a change in binding indicates that the compound or its salt changes a binding property of  
the G protein coupled receptor protein.

4-13. (Canceled)

14. (Currently Amended) ~~[[A]]~~ The method of-claim 1, ~~for screening an agonist to a G-protein-coupled receptor protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 8, or a salt thereof, which comprises assaying~~ wherein the cell stimulating activity is at least one selected from ~~[[the]]~~ intracellular  $\text{Ca}^{2+}$  level increasing activity, ~~[[the]]~~ intracellular cAMP production suppressing activity, MAP kinase phosphorylation or activation, ~~[[the]]~~ adrenocorticotrophic hormone (ACTH) secretion suppressing activity, ~~[[the]]~~ glycerol production suppressing activity or the lipolysis suppressing activity. ~~in the case where a test compound is contacted with cells containing a G-protein-coupled receptor protein comprising the same or substantially the same amino acid sequence as the amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 8, or a salt thereof.~~

15-77. (Canceled)

78. (New) The method of claim 1, wherein the compound is an agonist or antagonist to a G protein-coupled receptor protein.

79. (New) The method of claim 3, wherein the compound is an agonist or antagonist to a G protein-coupled receptor protein.

80. (New) The method of claim 14, wherein the compound is an agonist or antagonist to a G protein-coupled receptor protein.